



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/798,891

03/12/2004

Russell Smith

8618-USA

4903

31743

7590

01/05/2009

PATENT GROUP GA030-43
GEORGIA-PACIFIC LLC
133 PEACHTREE STREET, N.E.
ATLANTA, GA 30303-1847

EXAMINER

CHRISS, JENNIFER A

ART UNIT

PAPER NUMBER

1794

MAIL DATE

DELIVERY MODE

01/05/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/798,891	Applicant(s) SMITH ET AL.	
	Examiner JENNIFER A. CHRISS	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 October 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 5, 7, 9 - 11, 13, 15 - 17, 21 - 29 and 33 - 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 5, 7, 9 - 11, 13, 15 - 17, 21 - 29 and 33 - 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. The Applicant's Amendments and Accompanying Remarks, filed October 21, 2008, have been entered and have been carefully considered. Claims 33 – 42 are added, claims 30 - 32 are currently cancelled and claims 1 - 5, 7, 9 - 11, 13, 15 - 17, 21 - 29 and 33 - 41 are pending. The invention as currently claimed is not found to be patentable for reasons herein below.
2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 103

3. Claims 1 – 5, 7, 9 – 11, 13, 15 and 21 – 29 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. (US 2002/0155282) in view of Ali (U.S. Patent No. 4,647,486). New Claim 40 is now rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. (US 2002/0155282) in view of Ali (U.S. Patent No. 4,647,486).

As to claims 1 and 21, Randall et al. disclose a gypsum core sandwiched between two layers of glass fiber mats that were pre-coated with a combination of mineral pigment, inorganic adhesive binder, and organic binder (Abstract). The fibrous mat has a thickness between 10 and 40 mils (paragraph 38). The coating allows air and water to evaporate through during drying of the board (paragraph 37). The slurry penetrates into the non-coated side of the fabric and contacts the coating (paragraph

Art Unit: 1794

54).

As to claims 2 and 8, Randall et al. teach using various hydrophobic, UV resistant polymer latex materials (paragraph 49).

As to claim 3, the glass fibers may have a diameter of 13 to 16 microns (paragraph 39).

As to claim 4, the mat may weigh 1 to 3 pounds per 100 square feet (paragraph 39).

As to claims 5 and 27, the gypsum core density may be between 40 and 55 pounds per cubic foot (paragraph 36).

As to claims 7 and 9, Randall et al. teach the claimed portions of mineral pigment, inorganic binder, and organic binder (paragraph 41).

As to claim 10, the coating is first applied as an aqueous composition (paragraph 53).

As to claim 11, the claimed additives may be combined with the coating (paragraph 59).

As to claims 13-15, water-resistant additive, such as PVA or wax emulsion is used in the gypsum core (paragraph 34).

As to claim 22, Randall et al. teach that the mineral pigment may comprise limestone (calcium carbonate) (paragraph 42) and the organic binder may comprise an acrylic resin (paragraph 31).

As to claim 28, Randall et al. teach that the coated mat is liquid impermeable but does allow water vapor to pass through (paragraph 41).

As to claim 1, 21 and 23 - 24, Randall et al. do not disclose the percent thickness of the mat into which the coating extends. However, various values provided by Randall et al. imply Applicant's claimed limitation of 30 to 50%, penetration within about 30 – 50% of the thickness of the glass fiber mat over at least 50 percent of the surface area across the mat or penetration is within about 35 - 50% of the thickness of the glass fiber mat over at least 75% of the surface area of the mat. Randall et al. disclose the mat is completely embedded into the coating on one surface (paragraph 51). The thickness of the fiber mat is 10 to 40 mils (paragraph 38). The midpoint of this range would be 25 mils. Randall et al. teach the coating should have a thickness of 10 mils (paragraph 52). These values indicate a percent penetration of the coating into the mat of about 40%. Also, Randall et al. disclose that where a relatively thin mat is used (i.e. 10 mils, since this is the lowest thickness value disclosed), a coating as thin as 4 mils may suffice (paragraph 52). This would also give a percent penetration of 40%.

Even if not implicitly inherent, it would have been obvious to a person having ordinary skill in the art at the time of the invention to extend the coating between 30 to 50%, penetration within about 30 – 50% of the thickness of the glass fiber mat over at least 50 percent of the surface area across the mat or penetration is within about 35 - 50% of the thickness of the glass fiber mat over at least 75% of the surface area of the mat in order to provide sufficient bonding, since Randall et al. teach embedding the fabric into the coating and teach the coating may vary in thickness from 4 to 30 mils (paragraph 52).

Randall et al. do not disclose the percentage of combined water in the gypsum core in a region near the bond.

Ali teaches that combined water in gypsum provides for an effective fire barrier when about 21% of combined water is present (column 1, lines 20-23).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to provide at least 17% combined water in the gypsum core of Randall et al. in order to improve fire barrier properties, as taught by Ali.

As to the limitation of microporosity of the coating in claims 6 – 7 and 25 - 26 and the three-minute Cobb value of claim 2 and tensile strength of the bond between the gypsum board and mat facer of claim 29, although Randall et al. in view of Ali do not explicitly teach the measurement of microporosity as measured by the modified Gurley method, the three-minute Cobb value of 1.5 grams or below and the tensile strength of the bond between the gypsum core and mat facer of about 16 pounds per square inch, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found in the use of similar materials (i.e. the same coating comprising mineral pigment, organic binder, and inorganic binder) and in the similar production steps (i.e. pre-coating a fibrous mat and bonding the mat to a gypsum slurry) used to produce the gypsum board. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed microporosity would obviously have been provided by the process disclosed by Randall et al. because the entire goal of the reference is to provide a coating that is liquid impermeable, but

Art Unit: 1794

does allow water vapor to pass through (paragraph 41).

As to new claim 40, Randall et al. in view of Ali teach the claimed invention above but fail to teach that the coating has a viscosity of about 8,000 cps to 18,000 cps. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the viscosity of the coating motivated by the desire to create a coating having the desired thickness and porosity. The burden is upon the Applicant to demonstrate that the claimed viscosity is critical and has unexpected results. In the present invention, one would have been motivated to optimize the coating viscosity motivated by the desire to create a gypsum board having the desired physical characteristics such as porosity level.

4. Claim 16 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. in view of Ali as set forth above, and further in view of Babcock et al. (U.S. Patent No. 4,746,365). The details of the rejection can be found in the Office Action dated 6/26/08. The rejection is maintained.

5. Claim 17 remains rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. in view of Ali and Babcock et al. as set forth above, and further in view of Miyakoshi (U.S. Patent No. 5,827,788). The details of the rejection can be found in the Office Action dated 6/26/08. The rejection is maintained.

6. New claims 33, 35 – 39 and 41 - 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. (US 2002/0155282) in view of Ali (U.S. Patent No. 4,647,486) and further in view of Deodhar et al. (US 2003/0113572).

As to claim 33, Randall et al. disclose a gypsum core sandwiched between two layers of glass fiber mats that were pre-coated with a combination of mineral pigment, inorganic adhesive binder, and organic binder (Abstract). Randall et al. note that the coating is basically impervious to liquid water but should be sufficiently porous to permit water in the aqueous slurry to evaporate in its vaporous state (paragraph 37). The slurry penetrates into the non-coated side of the fabric and contacts the coating (paragraph 54).

As to claims 33 and 35, Randall et al. do not disclose the percent thickness of the mat into which the coating extends. However, various values provided by Randall et al. imply Applicant's claimed limitation of 30 to 50%, penetration within about 30 – 50% of the thickness of the glass fiber mat over at least 50 percent of the surface area across the mat or penetration is within about 35 - 50% of the thickness of the glass fiber mat over at least 75% of the surface area of the mat. Randall et al. disclose the mat is completely embedded into the coating on one surface (paragraph 51). The thickness of the fiber mat is 10 to 40 mils (paragraph 38). The midpoint of this range would be 25 mils. Randall et al. teach the coating should have a thickness of 10 mils (paragraph 52). These values indicate a percent penetration of the coating into the mat of about 40%. Also, Randall et al. disclose that where a relatively thin mat is used (i.e. 10 mils, since this is the lowest thickness value disclosed), a coating as thin as 4 mils may suffice

Art Unit: 1794

(paragraph 52). This would also give a percent penetration of 40%. Even if not implicitly inherent, it would have been obvious to a person having ordinary skill in the art at the time of the invention to extend the coating between 30 to 50% or between 35 – 50% in order to provide sufficient bonding, since Randall et al. teach embedding the fabric into the coating and teach the coating may vary in thickness from 4 to 30 mils (paragraph 52).

As to claim 36, Randall et al. teach that the coating composition is applied between 15 and 40 pounds per 1000 square feet of the board (paragraph 60).

Randall et al. do not disclose the percentage of combined water in the gypsum core in a region near the bond.

Ali teaches that combined water in gypsum provides for an effective fire barrier when about 21% of combined water is present (column 1, lines 20-23).

It would have been obvious to a person having ordinary skill in the art at the time of the invention to provide at least 17% combined water in the gypsum core of Randall et al. in order to improve fire barrier properties, as taught by Ali.

Randall et al. teaches the use of a mineral pigment and indicates that an effective pigment has a particle size such that at least 95% of the pigment particles pass through a 325 mesh wire screen (paragraph 42), however, Randall et al. in view of Ali fail to teach that the pigment has a particle size such that at least about 95% by weight of the mineral pigment particles pass through a 100 mesh wire screen as required by

Art Unit: 1794

claims 33 and 41.

Deodhar et al. is directed to a coating for a gypsum board face with uniform gloss intensity (Title). Deodhar et al. teach a coating comprising a binder, a soy protein and two or more pigments (paragraph 18). Deodhar et al. teach that the high quality finish that results from the use of this coating produces a uniform surface that takes paint evenly, significantly reducing differences in gloss intensity, even when glossy paints are used (paragraph 18). Deodhar et al. further note that the coating provides a surface that can be sanded without raising the fibers of the facing paper and the resulting rough surface after painting (paragraph 18) and provides a porous coating which prevents trapped air from creating pinholes in the painted surface (paragraph 27 and 29).

Deodhar et al. teach that the particle size distribution of the pigments contributes to the porosity of the finished joint compound. How the pigments pack together on the coating surface contributes not only to the sandability but also to the gloss uniformity. When the particles of the pigment pack tightly together, there is less variation in gloss across the wall surface. The preferred dolomite pigment has a particle size distribution such that 100% passes through a 50-mesh screen, 99.99% passes through a 60-mesh screen, 99.9% pass through a 100-mesh screen and 85% through a 325-mesh screen (paragraph 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use a pigment having a particle size such that at least about 95% by weight of the mineral pigment particles pass through a 100 mesh wire screen as suggested by Deodhar et al. in the coating composition of Randall et al. in view of Ali

Art Unit: 1794

motivated by the desire to create a coated gypsum board having uniform surface and uniform gloss intensity with sufficient porosity to prevent trapped air from creating pinholes on the surface of the gypsum board, when painted.

Randall in view of Ali and Deodhar teach the claimed invention above but fails to teach that about 75% of the particles by number are greater than 5 microns as required by claims 33 and 41 and number average particle size of about 40 microns as required by claim 42. It would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the particle size to greater than 5 microns or to a number average particle size of about 40 microns to control the porosity of the substrate while providing desired level of surface texture. The burden is upon the Applicant to demonstrate that the claimed particle size of greater than 5 microns or average particle size of about 40 microns is critical and has unexpected results. In the present invention, one would have been motivated to optimize the particle size to about 75% of the particles by number are greater than 5 microns or number average particle size of about 40 microns motivated by the desire to create a gypsum board with a porous coating having the desired surface characteristics.

As to the limitation of microporosity of the coating in claims 37 - 39, although Randall et al. in view of Ali and Deodhar do not explicitly teach the measurement of microporosity as measured by the modified Gurley method, it is reasonable to presume that said limitations are inherent to the invention. Support for said presumption is found

Art Unit: 1794

in the use of similar materials (i.e. same coating composition of mineral pigment, inorganic adhesive binder, and organic binder which is specifically indicated to be sufficiently porous to allow water vapor to pass through) and in the similar production steps (i.e. pre-coating a fibrous mat and bonding the mat to a gypsum slurry) used to produce the gypsum board. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald*, 205 USPQ 594. In the alternative, the claimed microporosity would obviously have been provided by the process disclosed by Randall et al. in view of Ali and Deodhar because the entire goal of the Randall is to provide a coating that is liquid impermeable, but does allow water vapor to pass through (paragraph 41).

7. New claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Randall et al. (US 2002/0155282) in view of Ali (U.S. Patent No. 4,647,486) and Deodhar et al. (US 2003/0113572), as applied above, and further in view of Kennedy et al. (US 5,484,653).

As to claim 34, Randall et al. teach that the glass fibers may have a diameter of 13 to 16 microns (paragraph 39), the mat may weigh 1 to 3 pounds per 100 square feet (paragraph 39) and the fibrous mat has a thickness between 10 and 40 mils (0.01 - 0.04 inch) (paragraph 38).

Randall et al. is silent regarding the length of the glass fibers, specifically that they are 1/4 to 1 inch in length.

Kennedy et al. is directed to a non-woven fiber mat for use as a backing material for various components used in the building industry (Abstract). Kennedy et al. teach

Art Unit: 1794

the use of glass fibers in the non-woven fiber mat having a length in the range of 1.2 to 4.4 cm (0.5 - 1.7 inch), preferably about 1.9 cm in length (0.7 inch) with an average diameter of between 10 and 20 microns (column 4, lines 35 – 50). Kennedy et al. note that the functional properties of the mat are affected by the dimensions of the fibers. Longer fibers with a larger diameter will tend to produce a mat with a coarser hand while a shorter, smaller diameter fiber contribute to a mat having a relatively softer hand (column 5, lines 1 - 25).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use glass fibers with a length ranging from 0.5 to 1.7 inches as suggested by Kennedy et al. in the glass mat of Randall et al. in view of Ali and Deodhar motivated by the desire to create a facer mat for a gypsum board using suitable glass fibers which provide the desired functional properties.

Double Patenting

8. Claims 1 – 5, 7, 9 – 11, 13, 15 – 17 and 21 - 29 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,3-16, and 18- 23 of copending Application No. 10/417,344 in view of Ali. The details of the rejection can be found in the Office Action dated 6/26/08. The rejection is maintained. This is a provisional obviousness-type double patenting rejection.

9. Claims 1 – 5, 7, 9 – 11, 13, 15 – 17 and 21 - 29 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-20

of U.S. Patent No. 6,808,793 in view of Ali. The details of the rejection can be found in the Office Action dated 6/26/08. The rejection is maintained.

Response to Arguments

10. Applicant's arguments filed October 21, 2008 have been fully considered but they are not persuasive.

11. Applicant argues that the parameters such as fiber mat thickness, coat weight, coat penetration, microporosity and water content at the gypsum core/mat bond region can vary greatly. The Applicant submits that the simultaneous combination of these parameters results in millions of possible combinations and as a result the selection of these specific parameters would have not been predictable. It should be noted that the Examiner does not rely on obviousness or optimization of variables to arrive at each of those mentioned parameters. For instance, Randall et al, the primary reference, specifically teaches that the fiber mat thickness is between 10 and 40 mils (0.01 – 0.04 inch) (Randall, [0039]) and the coating weight is applied between 15 and 40 pounds per 1000 square feet of the board (paragraph 60). It should be noted that each of those ranges significantly overlap with Applicant's claimed ranges. Furthermore, the Examiner has relied upon Ali to provide motivation to use at least 17 percent water in the gypsum core near the bond region in order to provide a sufficiently fire proof gypsum board. In regards to microporosity, Randall et al. suggests at least a certain level of porosity by stating that the coating is basically impervious to liquid water but should be sufficiently porous to permit water in the aqueous slurry to evaporate in its vaporous state (Randall,

Art Unit: 1794

[0037]). As noted above, based on the desire to have a certain level of porosity, the Examiner has submitted that the coating meets the level of microporosity or would be obvious over Randall et al. As to the coat penetration, the Examiner has shown, based on the disclosure of Randall et al., that the penetration level is inherent or at the very least rendered obvious. Overall, these parameters are taught or rendered obvious by the prior art. Applicant argues unexpected results indicating that the parameters are not predictable and had to be determined by extensive experimental studies. Applicant is only asserting that the results were unexpected and has not provided any evidence to support such a statement.

12. Applicant argues that obviousness cannot be predicated on what is not known. Applicant argues that controlling microporosity within the recited range was not known in the references at the time the invention was made. It should be noted that it has been held that "there is no requirement that a person of ordinary skill in the art would have recognized the inherent disclosure at the time of invention, but only that the subject matter is in fact inherent in the prior art reference". Schering Corp. v. Geneva Pharm. Inc., 339 F.3d 1373, 1377, 67 USPQ2d 1664, 1668 (Fed. Cir. 2003) (rejecting the contention that inherent anticipation requires recognition by a person of ordinary skill in the art before the critical date and allowing expert testimony with respect to post-critical date clinical trials to show inherency); see also Toro Co. v. Deere & Co., 355 F.3d 1313, 1320, 69 USPQ2d 1584, 1590 (Fed. Cir. 2004)("**[T]he fact that a characteristic is a necessary feature or result of a prior-art embodiment (that is itself sufficiently described and enabled) is enough for inherent anticipation, even if that fact was**

Art Unit: 1794

unknown at the time of the prior invention.”); *Abbott Labs v. Geneva Pharms., Inc.*, 182 F.3d 1315, 1319, 51 USPQ2d 1307, 1310 (Fed.Cir.1999). Applicant’s argument is not persuasive.

13. Applicant argues that the recited microporosity is not inherent in the cited references. Applicant notes on page 19 of the Specification that microporosity depends on a number of parameters such as mat thickness, coat weight, coat penetration and coat composition including the particle size distribution of the filler in the coating composition. As noted above, the Examiner does not rely on obviousness or optimization of variables to arrive at each of those mentioned parameters. For instance, *Randall et al*, the primary reference, specifically teaches that the fiber mat thickness is between 10 and 40 mils (0.01 – 0.04 inch) (*Randall*, [0039]) and the coating weight is applied between 15 and 40 pounds per 1000 square feet of the board (paragraph 60). Also, the Examiner as shown in the newly cited reference, *Deodhar et al.* (US 2003/0113572), above, there is motivation to use a particular particle size distribution. It should be noted that *Deodhar et al.* specifically indicates that there is a connection between porosity and particle size distribution. These parameters are taught or rendered obvious by the prior art. As such, the Examiner submits that the burden has been met for establishing inherency of a particular microporosity range. According to MPEP 2112.01, when the structure recited in the reference is substantially identical to that of the claims (which has been established in the above rejection), the claimed properties or functions (i.e. Applicant's claimed microporosity as measured by a modified Gurley method) are presumed to be inherent. When the PTO shows a sound

Art Unit: 1794

basis for believing that the products of the applicant and the prior art are the same, the applicant has the burden of showing that they are not.” *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990). Therefore, the prima facie case can be rebutted by evidence showing that the prior art products do not necessarily possess the characteristics of the claimed product. Applicant has not provided any evidence and, as a result, the rejection is maintained.

14. Applicant argues that Randall would not necessarily have the recited porosity range because the mineral pigment in Randall is different than the particle in the disclosed board. Specifically, the particles in Randall are smaller than the particles in the disclosed board. The Examiner acknowledges this deficiency in Randall et al, however, the limitation only appears in new independent claim 33 and new dependent claims 41 – 42. Please see the new rejections above which account for this limitation.

15. In regards to the double patenting rejections, Applicant argues that US 6,808,793 and Application 10/417,344 do not teach the recited bond water content or microporosity. The Examiner submits that these are inherent and/or obvious over the references as they both disclose the claimed parameters of the gypsum mat/board combination and the bond water content is rendered obvious as Ali suggests using such an amount to provide for fire resistance for the gypsum board. The rejections are maintained.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. CHRISS whose telephone number is (571)272-7783. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 6 p.m., first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Larry Tarazano can be reached on 571-272-1515. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1794

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jennifer A Chriss/
Examiner, Art Unit 1794

/J. A. C./
Examiner, Art Unit 1794